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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,190	03/24/2004	Jung Pill Kim	2004P50589US/1331.140.101	4568
7590	01/04/2006			
Dicke, Billig & Czaja, PLLC Fifth Street Towers, Suite 2250 100 South Fifth Street Minneapolis, MN 55402			EXAMINER WALLING, MEAGAN S	
		ART UNIT 2863	PAPER NUMBER	

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/808,190	KIM, JUNG PILL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Meagan S. Walling	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 October 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 and 19-24 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-5, 17 and 19-21 is/are allowed.
- 6) Claim(s) 6-8, 10, 11, 16, 22 and 23 is/are rejected.
- 7) Claim(s) 9, 11-15, 22 and 24 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/1/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

The indicated allowability of claims 6-16 and 22-24 is withdrawn. Rejections based on double patenting and the newly cited reference follow.

### *Claim Objections*

1. Claims 11 and 22 are objected to because of the following informalities:

Claim 11 recites the limitation "the switch network". There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the first comparator". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 6-8, 10, 11, and 16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18 and 19 of U.S. Patent No. 6,934,645. Although the conflicting claims are not identical, they are not patentably distinct from each other because they teach the same subject matter.

Regarding claim 6, Kim 6,934,645 (hereinafter referred to as Kim '645) teaches a comparator configured to receive a sense voltage that is indicative of a sensed temperature (column 11, lines 32-34); a temperature reference circuit coupled to the comparator, the temperature reference network having a plurality of reference voltages including at least a first and a second reference voltage (column 11, lines 35-40); and a control circuit coupled to the temperature reference circuit such that the control circuit controls alternately compares the plurality of reference voltages to the sense voltage, the control circuit further configured to receive a plurality of outputs from the comparator indicative of the comparisons of the plurality of the reference voltages to the sense voltage and wherein the control circuit determines when the sense voltage is between the first and second reference voltages (column 12, lines 7-12).

Regarding claim 7, Kim '645 teaches a trimmer coupled to the temperature reference circuit that is independently adjustable to adjust the plurality of reference voltages (column 12, line 12).

Regarding claim 8, Kim '645 teaches that the trimmer is a potentiometer with adjustable resistance to correct for input offset voltage in the comparator (column 12, lines 15-16).

Regarding claim 10, Kim '645 teaches a sensing device configured to sense the sensed voltage that varies with changes in temperature at the sensing device and that provides the sensed voltage to a first input of the comparator (column 11, lines 32-34).

Regarding claim 11, Kim '645 teaches a switch circuit coupled between the temperature reference circuit and a second input of the comparator and controlled by the control circuit such that the plurality of reference voltages are alternately applied to the second input and compared to the sense voltage by opening and closing switches in the switch circuit (column 11, lines 38-40).

Regarding claim 16, Kim '645 teaches a random access memory device (column 11, line 31).

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe (US 4,213,125).

Regarding claim 22, Watanabe teaches a comparator configured to receive a sense voltage that is indicative of a sensed temperature (Ref. 114); switched means coupled to the comparator for alternately comparing a first and second reference voltages with the sense voltage to produce a first and second comparison results (Ref. 115-118); latch means coupled to the

comparator for holding first and second comparison results (Ref. 110-113); and control means for determining from the first and second comparison results whether the sense voltage is between first and second reference voltages (column 1, lines 61-66).

Regarding claim 23, Watanabe teaches a reference network for providing the first and second reference voltages (column 1, lines 34-37).

***Allowable Subject Matter***

4. Claims 9, 12-15 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of allowability of claim 9 is the inclusion of the limitation that the trimmer is multiple resistors that may be removed and added to the trimmer in order to provide adjustable resistance to correct for input offset voltage in the comparator. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the indication of allowability of claim 12 is the inclusion of the limitation of first and second latches coupled to an output of a comparator such that the first latch holds a first comparison signal representative of a first comparison of the first reference voltage with the sense voltage and such that the second latch holds a second comparison signal representative of a second comparison of the second reference voltage with the sense voltage. It

is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

The primary reason for the indication of allowability of claim 24 is the inclusion of the limitation of trimmer means coupled to the reference network for independently adjusting the first and second reference voltages. It is this limitation in the claimed combination that has not been found, taught, or suggested by the prior art that makes these claims allowable.

5. Claims 1-5, 17, and 19-21 are allowed.

The following is an examiner's statement of reasons for allowance: Please see previous office action and applicant's response for reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Response to Arguments*

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meagan S. Walling whose telephone number is (571) 272-2283. The examiner can normally be reached on Monday through Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msw

BRYAN BUI  
PRIMARY EXAMINER

